

REMARKS/ARGUMENTS

Applicants have filed this Preliminary Amendment in response to the Office Action issued September 15, 2011 in the above-referenced application prosecution. Claims 3, 7 and 13 are independent and have been amended. New claims 19 and 20 have been added. Claims 4, 5, 10 and 16 have been amended and claims 8, 9 and 11 have been cancelled. Applicant respectfully requests the withdrawal of all outstanding rejections and objections and the allowance of all pending claims.

I. New and Amended Claims

New claims 19 and 20 have been added to include the limitation that the method of the present invention does not necessarily have to use additives. These new claims are fully supported by the specification of the '659 application, namely paragraphs [0037] and [0044]. No "new matter" is introduced.

Amended claims 3, 7, and 13 are fully supported by the specification of the '659 application, namely paragraphs [0007], [0008], [0031], [0032], [0039] and [0040]. Specifically, the emulsion created on the surface of the muscular tissue is disclosed in paragraphs [0039] and [0032]. In addition, claims 3, 7, and 13 have been amended to clarify that "cooked" (ready-to-eat) meat products are produced by the method of the present application. This amendment is supported throughout the specification, but specifically in paragraph [0016]. No "new matter" is introduced.

Amended claims 9 and 15 delete the negative recitation of not comprising olive oil and further specify the timing of the end of the first tumbling step (i.e. suspending the tumbling). These amendments are fully supported by the specification of the '659 application, namely in paragraph [0046]. No "new matter" is introduced.

II. Section 112 Rejections

Claim 3 has been amended to remove the negative recitation of a “non-olive based brine” and claims 9 and 15 have been amended for the same reason. Claims 3, 4, 7, 10, 13 and 16 have been amended to remove complete extraction or substantially extracted language. Therefore the amendments render this rejection moot and Applicant respectfully requests the withdrawal of this rejection.

III. Claim Rejections - 35 U.S.C. § 103

Claim 3-18 are stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Domazakis (U.S. Pub. No. 2003/0049364) (referred to as “Domazakis 2003”) in view of Hendricks et al. (U.S. Pat. No. 5,053,237) and Brandt (Marinades “Meat” Challenges publication). For the following reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection.

The Examiner asserts that Domazakis 2003 teaches most steps of the method as claimed in claims 3, 7 and 13 of the present invention. The Examiner admits that Domazakis 2003 does not teach the “entire muscular tissue” in relation to the meat product of the present invention. The Examiner asserts that Hendricks teaches this aspect of the present invention and that Brandt teaches tumbling; however, the combination of the cited references does not disclose that by tumbling the whole muscular piece of meat (i.e. the entire muscular tissue) after the injection of a brine the meat proteins are extracted to the surface of the muscular tissue and are capable of forming a stable emulsion with the added olive oil on the surface of the muscular tissue. Generally, the cited references alone nor in combination do not teach or indicate to the person of ordinary skills the key features of the method as instantly claimed: (1) injecting the brine into the entire muscular tissue, (2) tumbling the brine-injected entire muscular tissue to extract the meat

proteins, and then (3) adding olive oil and tumbling, in an independent tumbling step, the entire muscular tissue, in order for the olive oil to be adsorbed on the surface of the meat piece due to the creation of an emulsion.

Further, Hendricks teaches that unsaturated fat is incorporated via injection (Hendricks, claims 1, 13 and 14), but does not disclose that other methods are possible. On the other hand, the mere fact that marinades are injected (Brandt, page 4) and that “mixing, tumbling and massaging of meat at low temperatures facilitates tenderization through disintegration of the muscle fiber sheath and stretching of the myofibrils” (Brandt, page 1), does not unambiguously lead to the conclusion that “tumbling” or/and “massaging” may also be used for the incorporation of olive oil in the meat pieces. It is well known that olive oil does not constitute a brine ingredient. As also taught by Brandt, a functional marination system includes ingredients that promote the capability of the muscle to bind water, such as salt and phosphates and those that actually bind water such as soluble proteins and starches. In fact, if the Applicant would have been taught by Brandt and/or Hendricks, he would rather have chosen to inject the oil into the meat pieces, instead of simply adding into the drum of the tumbler, as Hendricks relies upon an injection mechanism, that delivers an injectate into the mass of the fresh meat. Therefore, the method of Hendricks teaches the skilled person away from simply adding the oil into the drum of a tumbler, followed by further processing (a second independent tumbling step), as taught in the patent under examination.

In addition, Brandt relates to the incorporation of a clearly water-based marinade. The present invention relates to the incorporation of olive oil. It is readily known to one in the art of this field that water is not similar to nor can be substituted for oil (and in fact it is to the contrary to do so). Therefore, the disclosures by Brandt of injecting, tumbling and massaging are

irrelevant because to use water instead of oil is not feasible.

It is asserted in the Office Action that although the references do not specifically disclose every possible quantification or characteristic of their product, such as extraction of proteins, forming the substance of the muscular tissue and **“creation of an emulsion of the extracted meat proteins with olive oil,”** as claimed in the present application these characteristics would have been expected to be as claimed, absent any clear and convincing reference to the contrary.

Tumbling is another method of marinating meat, in addition to injection and immersion. Massaging and tumbling result in the extraction of protein exudates, which mainly consist of salt-soluble proteins, actin and myosin. Extraction of proteins, by tumbling, serves two functions:

- (a) Promotes cohesion of the meat pieces (chunks) during thermal processing. The extracted protein will heat-coagulate during thermal processing.
- (b) The extracted proteins absorb water. Tumbling of the brine-injected chunks of meat, thus yields products with improved juiciness and textural characteristics.

Protein extraction and formation of a substance promoting cohesion of the meat pieces are thus indeed considered to be an inherent result of tumbling. However, the function of the extracted meat proteins to form a “protein layer” or “a substance on the surface of the muscular tissue” (as claimed in claims of the present application) that, at one hand, continues to promote binding between the meat pieces, while at the same time is capable of stably encapsulating the oil droplets, by means of emulsification/entrapment, cannot be considered as an inherent result of tumbling. This particular function of the extracted meat proteins was realised by the use of particular process features, including: (1) adding olive oil into the tumbling machine with the

brine-injected and fully tumbled entire muscular tissue, and (2) tumbling after the addition of olive oil (a second independent step).

Not only it is difficult to perceive the idea of how to incorporate oil in an entire muscular tissue product, without using an oil injection system, it is yet more difficult to achieve stable oil incorporation thereof such as is achieved by the method of the present application. Using the method disclosed in the application under examination, the oil droplets are stably incorporated within the "protein layer", comprising water and extracted meat proteins, at the surface of the meat chunks. Owing to the stable oil encapsulation, the "protein layer" now acquires a distinct characteristic, i.e. a yellowish colour. Neither the phenomenon of stable oil incorporation in an entire muscular tissue-based product, nor the characteristic colour arising therefrom, can be considered as an inherent result of tumbling.

The Office Action asserts that the combination of references disclose the same starting materials and methods as instantly claimed. The approach-to-solution, as claimed in the present application, comprises the critical steps, as shown above.

Domazakis 2003 cannot lead to the present invention, because it absolutely requires the meat to be finely divided in the form of a meat paste, before brine and olive oil are added. Thus, for that reason already, Domazakis 2003 cannot suggest the claimed process, where the brine and oil are added to entire muscular tissue. Further, Brandt uses water-based marinade (potentially containing water-binding ingredients) for treating the meat and thus it is not possible to combine it with Domazakis 2003, which teaches that meat has to be finely divided before salt and olive oil are added, or/and Hendricks which injects the oil. The combination of references (if it is possible to combine them) does not disclose the same method as instantly claimed: Selecting to inject (instead of adding) the brine into the entire muscular tissue, proceeding to the main

tumbling phase, adding the olive oil (instead of injecting) onto the fully-tumbled pieces of meat and proceeding to a second independent tumbling step. Therefore, the present method mainly relies on the mode of olive oil incorporation in entire-muscular tissue, the particular timing that this takes place and the realisation of an independent tumbling step (after the end of the main tumbling process).

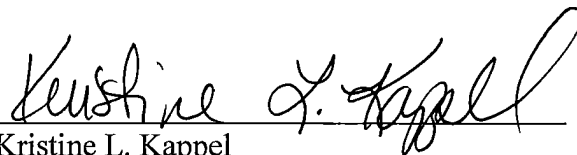
Therefore, the combination of Domazakis 2003 and Brandt, even when Hendricks is considered, does not fully disclose each limitation of independent claims 3, 7 and 13.

Applicant's request for extension of time under 37 CFR 1.136(a) as well as Applicant's petition fee are enclosed herewith and filed simultaneously with this response. Applicant respectfully submits the claims and the application are in condition for allowance and such is courteously solicited. If any issue regarding the allowability of any of the pending claims in the present application could be readily resolved, or if other action could be taken to further advance this application such as an Examiner's amendment, or if the Examiner should have any questions regarding the present amendment, it is respectfully requested that the Examiner please telephone Applicant's undersigned attorney in this regard. Should any fees be necessitated by this response, the Commissioner is hereby authorized to deduct such fees from Deposit Account No. 11-0160.

Respectfully submitted,

Date:

1-17-12



Kristine L. Kappel

Reg. No. 67,136

Husch Blackwell LLP

4801 Main St., Suite 1000

Kansas City, MO 64112

816-983-8000

ATTORNEYS FOR APPLICANT